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September 30, 1994

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#### **EX PARTE**

Mr. William F. Caton Acting Secretary Federal Communications Commission 1919 M Street, NW, Room 222 Washington, DC 20554 RECEIVED

SEP 3 0 1994

FEDERAL COMMUNICATIONS COMMISSION OFFICE OF SECRETARY

RE: PR Docket 93-61, Automatic Vehicle Monitoring Systems

Dear Mr. Caton:

On Friday, September 30, 1994, Peter Knight and I, on behalf of AirTouch Teletrac, met with James Coltharp of Commissioner Barrett's office and Lauren Belvin of Commissioner Quello's office. We discussed the information in the attached material. Please associate this material with the above-referenced proceeding.

Two copies of this notice were submitted to the Secretary of the FCC in accordance with Section 1.1206(a)(1) of the Commission's Rules.

Please stamp and return the provided copy to confirm your receipt. Please contact me at 202-293-4960 should you have any questions or require additional information concerning this matter.

Sincerely,

Kathleen Q. Abernathy

Attachments

cc:

Lauren Belvin James Coltharp

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# Review of FCC Rulemaking on LMS

PR Docket 93-61: Automatic Vehicle Monitoring (AVM) Systems



**September 20, 1994** 

EDERAL COMMUNICATIONS COMMISSION OFFICE OF SECRETARY

# Recent Informal FCC Proposal.

- Segregation of wide-area and local-area systems to different parts of the band
- Two 6 MHz wide-area LMS sub-bands: (904-910 MHz and 920-926 MHz)
- Auctioning of wide-area LMS sub-bands on a city/regional basis (exclusive within each sub-band)
- Criteria for defining harmful interference from Part 15 equipment
  - Antenna heights above 5 meters
  - 1 Watt Part 15.247 with 6 dBi antenna gain
  - Part 15.245 devices
- Provisions for grandfathering existing licenses

# Teletrac Comments to FCC Proposal.

- Band plan must include separate forward channel spectrum:
  - Within opposite LMS sub-band (per existing licenses), or
  - Outside LMS bands at upper edge of 902 928 MHz band
- Existing forward channel (925.015) grandfathered for all licenses
- Allow existing license holders 3 year transition period
- Grandfather systems built-out prior to end of 3 year period
- Part 15 devices not exceeding interference criteria must have a rebuttable presumption of non-interference (or stricter criteria)
- Support auctioning (suggested MTA licensing regions)

#### **Teletrac Position on Part 15 Co-existence.**

- ASSUMPTION: Part 15 is in the 902-928 MHz band to stay.
- Teletrac has designed its system to tolerate interference.
- The limited instances when interference is harmful require the interference to be resolved as quickly as possible.
- Changing the location of an LMS receive site is costly and takes time.
- Migrating individual Part 15 devices to a new frequency in isolated cases is the easiest, cheapest and least disruptive solution.
- Part 15 devices have other choices for spectrum:
  - outside LMS sub-bands within 902 928 MHz (10 to 14 MHz)
  - other ISM bands (2.4 GHz and 5.8 GHz)

#### Teletrac co-exists well with Part 15.

- Cases of harmful interference to Teletrac from Part 15 devices have been isolated (about 1 in 15,000). No case has required FCC involvement.
- The vast majority of interference has been caused by two types of Part 15 business/industrial devices (long range video links, anti-shoplifting systems). Simple frequency migration has solved almost every case.
- Primary interference from Teletrac to Part 15 is from narrowband forward channels (250 kHz out of 26 MHz). No reports of Part 15 operations being impacted by these signals.
- An LMS tolerance level to Part 15 interference proposed: 10 to 20 dB above noise floor (based on LMS experience, field measurements and analysis).
- LMS community has proposed good faith negotiation to resolve interference before seeking FCC intervention.

#### Incidents of Harmful Interference since 1991.

Equipment Type / Use	Part 15 Units in Teletrac Coverage *	Total Cases of Interference	Active Cases of Interference	Cases of Interference Involving FCC
Spread Spectrum	13,100	1	0	0
Wireless Stereo/Video	36,900	17	2	0
Cordless Telephones	184,500	1	0	0
Wireless Security Alarms - Residential	17,712	0	0	0
Wireless Security Alarms - Commercial	10,148	0	0	0
Field Disturbance Sensors	3,690	30	0	0
Wireless Bar-code Readers and Portable Computers	123,000	0	0	0
Meter Reading Transponders	369,000	0	0	0
Total	758,050	49	2	0
Percent	100%	0.006%	0.0003%	0.0%

<sup>\*</sup> Based on Part 15 manufacturer estimates scaled in proportion to US pops covered by Teletrac systems.

## Final rules are needed for continued LMS growth.

Continued development of needed services is impaired without final rules. Investors and customers are placed at risk if the existing environment continues.

- There has been significant technological innovation since the interim rules were put in place to help prove the viability of LMS
- An estimated \$500 million has been invested in LMS
- Over 35,000 LMS subscriber units are in service today with paying customers
- Continued growth of LMS depends on continued investment in technology development and infrastructure deployment
- Expansion of service offerings and coverage are critical elements in attracting and maintaining a growing customer base
- This expansion cannot progress at reasonable risk without final rules